

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

Claim 1 (canceled).

2. (currently amended) ~~A method according to Claim 1, of detecting a defective pixel of an image-pickup apparatus having a plurality of solid-state image-pickup devices each receiving a respective one of spectral lights obtained by separating light incident to said image-pickup apparatus, said method comprising the steps of:~~

~~_____ generating a value relating to a defect of an inspected pixel on each solid-state image-pickup device based on a signal level produced from said inspected pixel and signal levels produced from a plurality of pixels in the vicinity of said inspected pixel on said solid-state image-pickup device; and~~
~~_____ detecting a defective pixel based on said value relating to a defect of said inspected pixel of said solid-state image-pickup device.~~

~~wherein the step of said generating step said value relating to said defect of said inspected pixel is the~~ a step of calculating a difference between a signal level from said inspected pixel and an average value of signal levels from said plurality of pixels in the vicinity of said inspected pixel on said solid-state image-pickup device, said difference being calculated in each solid-state image-pickup device; and

wherein said detecting step comprises ~~includes the steps of:~~

_____calculating deviations of said difference of each said solid-state image-pickup device from average values of differences of at least other solid-state image-pickup devices, and

comparing said calculated deviations with one another to determine the defective pixel on said solid-state image-pickup device.

3. (original) A method according to Claim 2, wherein, in said detecting step, when said deviations calculated for said plurality of solid-state image-pickup devices is larger than a predetermined threshold value, it is detected that said inspected pixel on said solid-state image-pickup device is a defective pixel.

4. (original) A method according to Claim 2, wherein said average value of said differences is an average value of differences of said plurality of solid-state image-pickup devices.

Claims 5-7 (canceled).

8. (currently amended)An image-pickup apparatus according to Claim 7, comprising:

_____ a separator for separating light incident to said image-pickup apparatus to provide a plurality of spectral lights;

_____ a plurality of solid-state image-pickup devices for receiving said spectral lights to produce video signals respectively;

_____ a comparator circuit for comparing a signal level from an inspected pixel and signal levels from a plurality of pixels in the vicinity of said inspected pixel on said solid-state image-pickup devices;

_____ a detection circuit for detecting a defective pixel on said plurality of solid-state image-pickup devices based on said signal level obtained from said comparator circuit;

_____ a correction circuit, responsive to said detection circuit, for correcting a signal level from said defective pixel on said solid-state image-pickup device;
and

_____ a video signal processing circuit for producing a video signal based on the corrected signal level from the correction circuit,

wherein said comparator circuit calculates, in each said solid-state image-pickup device, a difference between a value of the signal level from said inspected pixel and an average value of signal levels from said plurality of pixels in the vicinity of said inspected pixel on said solid-state image-pickup device and generates a value relating to said defective pixel, and

wherein said detection circuit includes-comprises:

a first arithmetic operation circuit for calculating, in each solid-state image-pickup device, deviations of said difference of each said solid-state image-pickup device from average values of differences of at least other solid-state image-pickup devices and comparing said calculated deviations with one another to detect the said defective pixel on said solid-state image-pickup device.

9. (currently amended)An image-pickup apparatus according to Claim 8, wherein said detection circuit ~~includes~~comprises:

a second arithmetic operation circuit for detecting that said inspected pixel is a defective pixel, when said deviations calculated in said plurality of solid-state image-pickup devices is larger than a predetermined threshold value.

10. (original) An image-pickup apparatus according to Claim 8, wherein said average value of said differences is an average value of differences of said plurality of solid-state image-pickup devices.

Claims 11 and 12 (canceled).

13. (currently amended)An image-pickup apparatus according to Claim 9, wherein said correction circuit ~~includes~~comprises:

circuits responsive to said detection circuit for multiplying a defect signal from said inspected pixel by a predetermined defect correction coefficient to produce a corrected signal.

14. (currently amended)An image-pickup apparatus according to Claim 13, further comprising:

a control circuit for changing at least one of said predetermined threshold and said defect correction coefficient in accordance with image conditions.

15. (currently amended)An image-pickup apparatus according to Claim 14, wherein said image conditions contain at least one of the presence/absence of storage, a storage time and a video gain in said solid-state image-pickup device.

Claim 16 (canceled).